

AMENDMENTS TO THE CLAIMS

Please cancel (originally numbered) claims 2, 5 and 13-18 without prejudice.

1. (CURRENTLY AMENDED) A filter comprising:

a first pole having a biquadratic low pass characteristic and configured to provide a first low pass signal;

5 a second pole coupled to said first low pass signal, said second pole having a first-order low pass characteristic, and providing a second low pass signal and a high pass signal;

a third pole coupled to said second low pass signal and having a biquadratic low pass characteristic for generating a third low pass signal; and

10 a signal combiner for combining said third low pass signal and said high pass signal to provide a combined signal; and

a fourth pole coupled to said combined signal, said fourth pole having a biquadratic low pass characteristic.

2. (CANCELED)

3. (ORIGINAL) The filter according to claim 1, wherein said biquadratic characteristic of said first pole corresponds to a first bandpass frequency, said biquadratic characteristic of said third pole corresponds to a third bandpass frequency, and said

5 first bandpass frequency is lower than said third bandpass frequency.

4. (CURRENTLY AMENDED) The filter according to claim 2
1, wherein said biquadratic characteristic of said first pole
corresponds to a first bandpass frequency, said biquadratic
characteristic of said third pole corresponds to a third bandpass
5 frequency, said biquadratic characteristic of said fourth pole
corresponds to a fourth bandpass frequency, and said first bandpass
frequency is lower than said third and said fourth bandpass
frequency.

5. (CANCELED)

6. (ORIGINAL) The filter according to claim 1, wherein
said high pass signal corresponds to a portion of said first low
pass signal rejected by said second pole.

7. (ORIGINAL) The filter according to claim 1, wherein
said filter has a frequency related characteristic having (i) a
first component defined by an in-line signal path through poles in
said filter including said third pole and (ii) a second component
5 defined by a signal path bypassing said third pole, said first
component having a roll-off characteristic above a first

predetermined frequency, and said second component having a roll-off characteristic above a second predetermined frequency higher than said first predetermined frequency.

8. (ORIGINAL) The filter according to claim 7, wherein said second component is configured to compensate for said roll-off characteristic of said first component above said first predetermined frequency.

9. (ORIGINAL) The filter according to claim 1, wherein the filter is a tuner filter.

10. (ORIGINAL) The filter according to claim 1, wherein said filter is implemented in an integrated circuit.

11. (ORIGINAL) The filter according to claim 1, wherein the filter is an Gaussian family filter.

12. (ORIGINAL) The filter according to claim 11, wherein the filter is an equiripple filter.

13. (CANCELED)

14. (CANCELED)

15. (CANCELED)

16. (CANCELED)

17. (CANCELED)

18. (CANCELED)

19. (ORIGINAL) A filter comprising:

a plurality of filter poles coupled in series; and
a bypass path for bypassing one or more but not all of
said filter poles;

5 wherein said filter has a frequency related
characteristic having a first component defined by an in-line
signal path through said poles in said filter including said one or
more filter poles, and a second component defined by said bypass
path,

10 wherein said first component has a magnitude roll-off
characteristic above a first predetermined frequency and a group
delay extending to at least a second predetermined frequency higher
than said first frequency without peaking,

15 wherein said second component has a magnitude roll-off
characteristic above said second predetermined frequency, said
second component being configured to compensate for said magnitude

roll-off characteristic of said first component above said first predetermined frequency;

20 wherein said first and said second components combine to provide a substantially flat magnitude characteristic to said second predetermined frequency.

20. (ORIGINAL) The filter according to claim 19, wherein said filter is a Gaussian family filter.

21. (ORIGINAL) The filter according to claim 20, wherein said filter is an equiripple filter.

22. (ORIGINAL) The filter according to claim 19, wherein said second frequency is about twice the first frequency.

23. (CURRENTLY AMENDED) A method of filtering a signal comprising the steps of:

(A) ~~first~~ biquadratic second order low pass filtering said signal to provide a first signal;

5 (B) first order low pass filtering said first signal to provide a second signal and a high pass signal;

(C) ~~second~~ biquadratic second order low pass filtering said second signal to provide a third signal; and

10 (D) combining said third signal and said high pass signal to provide a fourth signal; and

(E) biquadratic low pass filtering said combined signal.

24. (CURRENTLY AMENDED) A filter comprising:

~~first~~ means for biquadratic second order low pass filtering said signal to provide a first signal;

5 means for first order low pass filtering said first signal to provide a second signal and a high pass signal;

~~second~~ means for biquadratic second order low pass filtering said second signal to provide a third signal; ~~and~~

~~third~~ means for combining said third signal and said high pass signal to provide a fourth signal; and

10 means for biquadratic low pass filtering said combined signal.